ABSTRACT OF THE DISCLOSURE

A packet switch apparatus is disclosed which can send a packet to paths at the respective, different output bit rates thereof without degrading the efficiency of used of a common memory. A storing part stores a packet in a free space of the common memory. An enqueuing part enqueues a pointer indicating the stored packet to queues corresponding to paths to which the packet is scheduled to be sent. A sending part dequeues the enqueued pointer for each of the queues corresponding to the paths and sends the packet indicated by the dequeued pointer to the paths corresponding to the queues at the respective transmission bit rate thereof. A discarding part discards, on a queue basis, pointers from a head thereof in which it is determined that the number of pointers enqueued exceeds a predetermined threshold value. An free-address management part sets the free space of the common memory occupied by the packet to a busy state, and changes the free space that is now in the busy state to a free space when the pointer indicating the packet is dequeued or discarded from all of the queues to which the packet is scheduled to be sent.